# MINOR SOURCE OPERATING PERMIT
# OFFICE OF AIR MANAGEMENT

## Bristolpipe, Inc.
## 503 East Vistula Street
## Bristol, Indiana 46507

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

| | |
|---|---|
| Operation Permit No.: MSOP 039-11656-00064 | |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) . The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a PVC and ABS plastic pipe manufacturing plant.

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| Authorized Individual: | John Nikolas |
| Source Address: | 503 E Vistula St., Bristol, Indiana 46507 |
| Mailing Address: | 601 C.R.17, P.O. Box 1868, Elkhart, IN 46515 |
| Phone Number: | (219) 848-4402 |
| SIC Code: | 3079 |
| County Location: | Elkhart |
| County Status: | Attainment for all criteria pollutants |
| Source Status: | Minor Source Operating Permit<br>Minor Source, under PSD or Emission Offset Rules;<br>Minor Source, Section 112 of the Clean Air Act |

### A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One(1) PVC resin blender, identified as BL1, with a maximum blending capacity of 8,330 pounds per hour, using a bin vent dust collector as control, and exhausting to stack B1.

(b) Two (2) extruders, identified as E1 and E2, each with a maximum extruding capacity of 1,500 pounds per hour, each using a bin vent dust collector as a control, and exhausting to stack E01.

(c) One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 1,000 pounds per hour, using a cyclone as control, and exhausting to stack R01.

(d) Two (2) ABS dryers, identified as M1 and M2, each with a maximum drying capacity of 1,280 pounds of ABS resin per hour, each using a bin vent dust collector as control, and exhausting to stack M01.

The source also consists of the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(e) One (1) natural gas fired boiler, identified as B1, rated at 0.528 million British thermal unit (MMBtu) per hour, using no controls, and exhausting to stack boiler.

(f) One (1) natural gas fired space heater, identified as SH1, rated at 0.1 million British thermal unit (MMBtu) per hour, using no controls, and venting to the atmosphere.

(g) Twelve (12) silos for storing PVC compound, PVC resin, ABS pellets and regrounded plastic material, identified as S1 to S5, S7 to S10 and S12 to S14, each with maximum storage capacity of 122,600 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(h) Two (2) silos for storing limestone, identified as S6 and S15, each with a maximum storage capacity of 151,200 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(i) One (1) silo for storing PVC resin, identified as S11, with a maximum storage capacity of 211,000 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(j) One (1) flexographic printer, identified as P1, with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes, using no controls and venting inside the building.

**SECTION B GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.3 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.4 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 and the following requirements shall be met after issuance:

(a) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of any of the criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**Testing Requirements**

C.8 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Compliance Monitoring Requirements**

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6] [326 IAC 2-2-4]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

**Record Keeping and Reporting Requirements**

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.15 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

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|---|---|
| (a) | One(1) PVC resin blender, identified as BL1, with a maximum blending capacity of 8,330 pounds per hour, using a bin vent dust collector as control, and exhausting to stack B1. |
| (b) | Two (2) extruders, identified as E1 and E2, each with a maximum extruding capacity of 1,500 pounds per hour, each using a bin vent dust collector as a control, and exhausting to stack E01. |
| (c) | One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 1,000 pounds per hour, using a cyclone as control, and exhausting to stack R01. |
| (d) | Two (2) ABS dryers, identified as M1 and M2, each with a maximum drying capacity of 1,280 pounds of ABS resin per hour, each using a bin vent dust collector as control, and exhausting to stack M01. |

**Emission Limitations and Standards**

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the PVC blender shall not exceed 10.66 pounds per hour when operating at a process weight rate of 8,330.00 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the each extruder (E1 and E2) shall not exceed 3.38 pounds per hour when operating at a process weight rate of 1,500.00 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

(c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the regrinder/pulverizer shall not exceed 2.58 pounds per hour when operating at a process weight rate of 1,000.00 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000

pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

(d) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from each ABS dryer( M1 and M2) shall not exceed 3.04 pounds per hour when operating at a process weight rate of 1,280.00 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions units and its control devices.

**Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emission units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.4 Particulate Matter (PM)

(a) The bin vent dust collector for PM control shall be in operation and control emissions from the PVC blender at all times that the PVC Blender is in operation.

(b) The bin vent dust collector for PM control shall be in operation and control emissions from the extruder at all times that the extruder is in operation.

(c) The cyclone for PM control shall be in operation and control emissions from the regrinder/pulverizer at all times that the regrinder/pulverizer is in operation.

(d) The bin vent dust collector for PM control shall be in operation and control emissions from the ABS dryer at all times that the ABS dryer is in operation.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.1.5 Visible Emissions Notations

(a) Daily visible emission notations of the PVC blender, extruders, regrinder/pulverizer and ABS dryers stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not

counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.6 Bin vent dust collector Inspections

An inspection shall be performed each calender quarter of all bags controlling the PVC resin blender, extruders, ABS dryers and silos operation when venting to the atmosphere. A bin vent dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.7 Cyclone Inspections

An inspection shall be performed each calender quarter of all cyclones controlling the regrinder/pulverizer operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.8 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.

(b) For single compartment bin vent dust collector, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

D.1.9 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

**Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the PVC blender, extruders, regrinder/pulverizer and

ABS dryers stack exhausts.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain records of the results of the inspections required under ConditionsD.1.6 and D.1.7 and the dates the vents are redirected.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

| | |
|---|---|
| (e) | One (1) natural gas fired boiler, identified as B1, rated at 0.528 million British thermal unit (MMBtu) per hour, using no controls, and exhausting to stack boiler. |
| (f) | One (1) natural gas fired space heater, identified as SH1, rated at 0.1 million British thermal unit (MMBtu) per hour, using no controls, and venting to the atmosphere. |
| (g) | Twelve (12) silos for storing PVC compound, PVC resin, ABS pellets and regrounded plastic material, identified as S1 to S5, S7 to S10 and S12 to S14, each with maximum storage capacity of 122,600 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere |
| (h) | One (1) silo for storing PVC resin, identified as S11, with a maximum storage capacity of 211,000 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere. |
| (i) | One (1) flexographic printer, identified as P1, with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes, using no controls and venting inside the building. |

**Emission Limitations and Standards**

D.2.1 Particulate Matter (PM)

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating**,** the PM emissions from the 0.528 MMBtu per hour heat input boiler shall be limited to 0.6 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

Where Pt = Pounds of particulate matter emitted per million Btu heat input(lb/MMBtu)
Q = Maximum operating capacity in MMBtu/hr

**Compliance Determination Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.2.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
**OFFICE OF AIR MANAGEMENT**
**COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT**
**ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

| | |
|---|---|
| **Company Name:** | ***Bristolpipe Inc.*** |
| **Address:** | **503 East Vistula Street, Bristol, Indiana 46507** |
| **City:** | **Bristol** |
| **Phone #:** | **(219) 272-7044** |
| **MSOP #:** | **039-11656-00064** |

I hereby certify that Bristolpipe Inc. is **9** still in operation.
**9** no longer in operation.

I hereby certify that Bristolpipe Inc. is
**9** in compliance with the requirements of MSOP **039-11656-00064**.
**9** not in compliance with the requirements of MSOP **039-11656-00064**.

| |
|---|
| **Authorized Individual (typed):** |
| **Title:** |
| **Signature:** |
| **Date:** |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

| |
|---|
| **Noncompliance:** |
| |
| |
| |
| |
| |

## MALFUNCTION REPORT

### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
### OFFICE OF AIR MANAGEMENT
**FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. (
)_____
LOCATION: (CITY AND
COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____
INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND
REASON:_____
_____
_

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:
_____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)
MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2



**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

# Indiana Department of Environmental Management
# Office of Air Management

## Addendum to the
## Technical Support Document for Minor Source Operating Permit

| | |
|---|---|
| Source Name: | Bristolpipe, Inc. |
| Source Location: | 503 East Vistula St., Bristol, Indiana 46507 |
| County: | Elkhart |
| Operation Permit No.: | 039-11656-00064 |
| SIC Code: | 3079 |
| Permit Reviewer: | Spahi |

On January 28, 2000, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, stating that Bristolpipe, Inc. applied for a minor source operating permit to operate a PVS and ABS plastic pipe manufacturing plant. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 29, 2000, Bristolpipe, Inc. submitted comments on the proposed MSOP. The summary of the comments is as follows:

Comment #1: Section A.2(b), D.1(b) of the MSOP and Page 1 and 5 of the TSD - There are two extruders at the plant (not one), with a maximum extrusion capacity of about 1,500 pounds per hour each. The designation “E1" in the permit application refers to the total extrusion process. Please revise the draft permit accordingly.

Response #1: OAM, IDEM has already incorporated these changes in the permit. OAM, IDEM normally does not amend the TSD. This change will be kept on file.

Comment #2: Section A.2(d), D.1(d) of the MSOP and Page 1 and 6 of the TSD - There are two ABS dryers at the plant (not one), with a maximum drying capacity of about 1,280 pounds per hour each. The designation “M1" in the permit application refers to the total drying process. Please revise the draft permit accordingly.

Response #2: OAM, IDEM has already incorporated these changes in the permit. OAM, IDEM normally does not amend the TSD. This change will be kept on file.

Comment #3: Section A.2(f) and D.2(f) of the MSOP and Page 1 of the TSD - The natural gas fired space heater vents outside of the building (not inside). Please revise the draft permit accordingly.

Response#3: OAM, IDEM has already incorporated these changes in the permit. OAM, IDEM normally does not amend the TSD. This change will be kept on file.

Comment #4: Section A.2(j), D.2 of the MSOP and Page 1 of the TSD - Inks are used to label finished products via flexographic printing technology. However, the process does not utilize a printing “press” and 326 IAC 8-5-5 is not applicable. Please revise the draft permit.

Response #4: OAM, IDEM has already incorporated these changes in the permit. OAM, IDEM normally does not amend the TSD. This change will be kept on file. OAM has determined that 326 IAC 8-1-6 will not apply to the flexographic printer.

Comment #5: Section C.7(Opacity) of the MSOP - Please clarify whether Bristolpipe is required to measure opacity in accordance with 40 CFR , Appendix A, Method 9 in order to document compliance with the opacity limitations provided in the section C.7 of the draft permit.

Response #5: Opacity testing by the source is not specifically required by this permit. However, an OAM inspector will use Method 9 test to determine if the source is in compliance with the 326 IAC 5-1-2 limits.

Comment #6: Section C.14(General Reporting Requirements) of the MSOP - Bristolpipe requests that the compliance reporting period be changed from quarterly to semiannual. Bristolpipe has never been cited for exceeding an opacity or particulate limit. Therefore, we believe that semiannual reporting is sufficient.

Response #6: Section C.14 is going to be removed from the permit because there are no reporting requirements for this source.

Comment #7: Section D.1.1 and D.2.1 of the MSOP - Bristolpipe, Inc. intends to document compliance with these conditions by using the equations provided in the draft permit. No stack testing will be performed to measure particulate emissions. Please confirm this understanding.

Response #7; Equations provided in the Section D.1.1 and D.2.1 are used to calculate the maximum particulate matter emissions per hour for each emission equipment allowed by 326 IAC 6-3-2 based on the maximum process weight for each facility. These equations cannot be used to calculate the particulate matter emitted from each emission unit. The reference method for determining compliance with the limitations(326 IAC 6-3-2) that applies to particulate matter emissions from these facilities is a “method 5 stack test”. Only a stack test will verify that the source is in compliance with the 6-3-2 limit, but the calculations are used to determine the limit.

Comment #8: Section D.1.2 of the MSOP - Please clarify which unit is referenced as requiring a preventive maintenance plan.

Response #8: The preventive maintenance plan applies to all the emission units and its controls listed in section D.1.

Comment #9: Section D.1.7(a), D.1.7(b) and D.1.8 of the MSOP - This condition references “Section B - Emergency provision”. However, there is no “ Emergency Provision” section in the draft permit. Please clarify.

Response #9: OAM, IDEM agrees with the Permittee that there is no “Emergency Provision” section listed in the permit. So references to “Emergency Condition” have been removed from the above listed conditions.

Comment #10: Section D.1.8 - This condition appears to duplicate D.1.7. Please clarify.

Comment #10: Section D.1.8 applies to the cyclone and not to the baghouse listed in section D.1. OAM has already corrected this error.

Upon further review, OAM has made the following changes (changes are bolded for emphasis):

A.2 Emissions units and Pollution Control Equipment Summary

(i) One (1) silo for storing PVC resin, identified as S11, with a maximum storage capacity of ~~211,00~~ **211,000** pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

**B.3 Modification to Permit [326 IAC 2]**

**Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).**

**C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6] [326 IAC 2-2-4]**

**(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:**

**(1) This condition;**

**(2) The Compliance Determination Requirements in Section D of this permit;**

**(3) The Compliance Monitoring Requirements in Section D of this permit;**

**(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and**

**(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :**

**(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and**

**(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.**

**(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.**

**(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:**

**(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.**

**(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;**

**(3) An automatic measurement was taken when the process was not operating; or**

**(4) The process has already returned to operating within "normal" parameters and no response steps are required.**

**(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.**

**D.1.7 Cyclone Inspections**

**An inspection shall be performed each calender quarter of all cyclones controlling the woodworking operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.**

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

(h) One (1) silo for storing PVC resin, identified as S11, with a maximum storage capacity of ~~211,00~~ **211,000** pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

# Indiana Department of Environmental Management
# Office of Air Management

## Technical Support Document (TSD) for a ***Minor Source Operating Permit***

### Source Background and Description

**Source Name:** ***Bristolpipe, Inc.***
**Source Location:** ***503 E Vistula St., Bristol, Indiana 46507***
**County:** ***Elkhart***
**SIC Code:** ***3079***
**Operation Permit No.:** **039-11656-00064**
**Permit Reviewer:** ***Spahi***

The Office of Air Management (OAM) has reviewed an application from Bristolpipe, Inc. relating to the operation of the PVC and ABS plastic pipe manufacturing plant.

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One(1) PVC resin blender, identified as BL1, with a maximum blending capacity of 8,330 pounds per hour, using a bin vent dust collector as control, and exhausting to stack B1.

(b) One (1) extruder, identified as E1, with a maximum extruding capacity of 9,580 pounds per hour, using a bin vent dust collector as control, and exhausting to stack E01.

(c) One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 1,000 pounds per hour, using a cyclone as control, and exhausting to stack R01.

(d) One (1) ABS dryer, identified as M1, with a maximum drying capacity of 1,280 pounds of ABS resin per hour, using a bin vent dust collector as control, and exhausting to stack M01.

The source also consists of the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(e) One (1) natural gas fired boiler, identified as B1, rated at 0.528 million British thermal unit (MMBtu) per hour, using no controls, and exhausting to stack boiler.

(f) One (1) natural gas fired space heater, identified as SH1, rated at 0.1 million British thermal unit (MMBtu) per hour, using no controls, and venting inside the building

(g) Twelve (12) silos for storing PVC compound, PVC resin, ABS pellets and regrounded plastic material, identified as S1 to S5, S7 to S10 and S12 to S14, each with maximum storage capacity of 122,600 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(h) Two (2) silo for storing limestone, identified as S6 and S15, each with a maximum storage capacity of 151,200 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(i) One (1) silo for storing PVC resin, identified as S11, with a maximum storage capacity of 211,00 pounds, and using nine (9) bin vent dust collectors as controls, and venting to the atmosphere.

(j) One (1) flexographic printing press, identified as P1, with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes, using no controls and venting inside the building.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration No. 20-07-85-0597, issued on May 8, 1985.

All conditions from previous approvals were incorporated into this permit.

**Stack Summary**

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature ($^0$F) |
|---|---|---|---|---|---|
| B01 | PVC Blender | 50 | 0.5 | 300 | ambient |
| E01 | Extruder | 20 | 1 | 100 | " |
| R01 | Regrinder | 50 | 0.5 | 300 | " |
| M01 | Dryer | 18 | 0.5 | 100 | 180 |
| Boiler | Boiler | 24 | 1.3 | N/A | 250 |

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 13, 1999, with additional information received on January 14,2000.

**Emission Calculations**

See Appendix A of this document for detailed emissions calculations from the natural gas fired facilities (1 Page .)

See Appendix B of this document for detailed PM/PM10 and VOC emissions calculations from the PVC/ABS facilities (2 Page.)

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

| Pollutant | Potential To Emit (tons/year) |
|---|---|
| PM | 37.83 |
| PM-10 | 37.83 |
| $SO_2$ | 0.0 |
| VOC | 0.54 |
| CO | 0.3 |
| $NO_x$ | 0.4 |

(a) The potential to emit (as defined in 326 IAC 2-5.1-3(a)(1)(E)) of PM and PM-10 is greater than 25 tons per year but less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.

**County Attainment Status**

The source is located in Elkhart County.

| Pollutant | Status |
|---|---|
| PM-10 | Attainment |
| $SO_2$ | Attainment |
| $NO_2$ | Attainment |
| Ozone | Maintenance |
| CO | Attainment |
| Lead | Attainment |

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Elkhart County has been classified as nonattainment for VOC. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

**Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant | Emissions (ton/yr) |
|---|---|
| PM | 1.0596 |
| PM10 | 1.0596 |
| $SO_2$ | 0.0 |
| VOC | 0.54 |
| CO | 0.3 |
| $NO_x$ | 0.4 |

(a) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and it is not in one of the 28 listed source categories.

(b) These emissions were based on the past registration issued to this source.

**Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

**Federal Rule Applicability**

(a) The ABS Dryer is not subject to the requirements of the New Source Performance Standard(NSPS), 326 IAC 12, (40 CFR 60.730, Subpart UUU) because ABS resin is not considered to be a mineral.

(b) The flexographic printing press(P1) is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 326 IAC 14, (40 CFR Part 63.820 Subpart KK) because the printing press is not a major source for hazardous air pollutants(HAP), as defined in 326 IAC 14 and 40 CFR 63.2.

**State Rule Applicability - Entire Source**

326 IAC 2-6 (Emission Reporting)

This source is located in Elkhart County and the potential to emit VOC and $NO_X$ is less than ten (10) tons per year. The potential to emit of PM10, $SO_X$ and CO is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

326 IAC 6-2-4 (Emission limitations for boilers)

Pursuant to 326 IAC 6-2-4(Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the boiler shall be limited by the following equation:

$Pt = 1.09/Q^{0.26}$

Where Pt = Pounds of particulate matter emitted per million Btu heat input(lb/MMBtu)
Q = Maximum operating capacity in MMBtu/hr

Q = 0.528 MMBtu/hr

$Pt = 1.09/(0.528)^{0.26} = 1.286$ lbs of PM/MMBtu

For Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 and the maximum particulate emissions from the boiler is 0.001 lbs of PM/MMBtu. So this boiler meets this rule.

326 IAC 6-3-2 (Process Operations)

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

1. <u>PVC Blender:</u>

P = 8,330 lbs/hr

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10\ (8330/2000)^{0.67} = 10.66$ pounds per hour

The PTE after controls of the PVC Blender is (8,330/2000) tons/hr x 1.76 lbs of PM/ton x (1-0.98) = 0.1466 pounds per hour, so the PVC blender meets this rule.

The bin vent dust collector shall be in operation at all times the PVC blender is in operation, in order to comply with this limit.

(b) <u>Extruder:</u>

P = 9,580 lbs/hr

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

$E = 4.10 (9,580/2000)^{0.67} = 11.71$ pounds per hour

The PTE after controls of the PVC Blender is (9,580/2000) tons/hr x 1.76 lbs of PM/ton x (1-0.98) = 0.1686 pounds per hour, so the extruder meets this rule.

The bin vent dust collector shall be in operation at all times the extruder is in operation, in order to comply with this limit.

(c) Regrinder/Pulverizer:

P = 1,000 lbs/hr

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10 (1,000/2000)^{0.67} = 2.58$ pounds per hour

The PTE after controls of the regrinder/pulverizer is (1,000/2000) tons/hr x 1.76 lbs of PM/ton x (1-0.90) = 0.088 pounds per hour, so the regrinder/pulverizer meets this rule.

The cyclone shall be in operation at all times the regrinder/pulverizer is in operation, in order to comply with this limit.

4. ABS Dryer:

P = 1,280 lbs/hr

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

$E = 4.10 (1,280/2000)^{0.67} = 3.04$ pounds per hour

The PTE after controls of the ABS dryer is (1,280/2000) tons/hr x 1.76 lbs of PM/ton x (1-0.98) = 0.0225 pounds per hour, so the ABS dryer meets this rule.

The bin vent dust collector shall be in operation at all times the ABS dryer is in operation, in order to comply with this limit.

326 IAC 8-1-6(BACT)

The potential to emit(PTE) of the volatile organic compounds(VOCs) from the flexographic press(P1) is less than twenty-five(25) tons per year. Therefore, 326 IAC 8-1-6 does not apply.

326 IAC 8-5-5(Graphic Arts Operations)

The potential to emit(PTE) of the volatile organic compounds(VOCs) from the flexographic press(P1) is less than twenty-five(25) tons per year. Therefore, 326 IAC 8-5-5 does not apply.

**Conclusion**

The operation of the PVC and ABS plastic pipe manufacturing plant shall be subject to the conditions of the attached proposed Minor Source Operating Permit 039-11656-00064.

**Potential to Emit of the whole source:**

**PM/PM-10 Emissions:**

Maximum PVC Resin processed = 33,535 tons./yr

Maximum ABS Resin processed = 5,138 tons/yr

Potential PM and PM-10 emissions per ton of processed product = 1.76 pounds/ton*

Total PM and PM-10 emissions per year = (33,535 tons/yr + 5,138 tons/yr) x 1.76 pounds/ ton
= 38,673 tons/yr x 1.76 pounds/ton
= 68,064 pounds/yr x 1 ton/2000 pounds
= 34.03 tons/yr

PM and PM 10 emissions from the regrinder/pulverizer:

Maximum capacity = 1,000 pounds/hr

Potential PM and PM-10 emissions per hour at maximum capacity = 0.865 pounds/hr*

Total PM ans PM-10 emissions per year = 0.865 pounds/hr x 1 ton/2000 pounds x 8760 hours/yr
= 3.79 tons/yr

Total PM and PM 10 emissions from the whole source before controls:

PM/PM10 emissions = 34.04 tons/yr + 3.79 tons/yr = 37.83 tons/yr

Total PM and PM 10 emissions from the whole source after controls:

Bin vent dust collector efficiency = 98%(collecting PM/PM-10 emissions from the blender, extruder and silos)

Cyclone efficiency: 90%(Cyclone is collecting PM/PM-10 emissions from the regrinder/pulverizer only)

PM/PM10 emissions from processed PVC/ABS resin = 34.03 tons/yr x (1-0.98)
= 0.6806 tons/yr

PM/PM-10 emissions from the regrinder/pulverizer = 3.79 tons/yr x (1-0.90)
= 0.379 tons/yr

Total PM/PM-10 emissions after control = (0.6806 + 0.379) tons/yr = 1.0596 tons/yr.

* This emission factor was provided by the source based on their internal study of total material loss(ABS/PVC resin) and total material throughput.

**VOC emissions**:

Maximum rate of PVC/ABS Inks = 0.118 pounds/hr
Weight % of volatiles in the PVC/ABS inks = 67

Maximum rate of Thinner - 0.044 pounds/ hr

Weight % of volatiles in Acetone = 100

Total VOC emissions from the printing press =
Maximum rate of PVC/ABS inks x weight % of the volatiles in the PVC/ABS resin + Maximum rate of thinner x weight % of the volatiles in the Acetone

= 0.118 pounds/hr x 0.67 + 0.044 pouns/hr x 1.0
= 0.12306 pounds/hr x 8760 hr/yr x 1ton/2000 pounds
=0.539 tons VOC/yr

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**1 Boiler, 1 Space heater and 1 Material dryer**

**Company Name:** **Bristolpipe, Inc.**
**Address City IN Zip:** **503 East Vistula Street, Bristol, IN 46515**
**CP:** **039-11656**
**Plt ID:** **039-00064**
**Reviewer:** Spahi
**Date:** 01-14-2000

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 0.8 | 7.3 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.3 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.